### **AMENDMENTS TO THE CLAIMS**

Please substitute the following amended claims for corresponding claims previously presented.

1 (Currently amended). A compound of formula I,

wherein

 $R^1$  represents  $C_{1-12}$  alkyl,  $\underline{C_{3-12}}$  cycloalkyl,  $\underline{-(CH_2)_a}$ -aryl, or  $(CH_2)_a$ Het<sup>1</sup> (all of which are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro,  $C_{1-4}$  alkyl,  $\underline{C_{3-4}}$  cycloalkyl and/or  $C_{1-4}$  alkoxy  $\underline{\text{or } C_{3-4}}$  cycloalkoxy);

a represents 0, 1, 2, 3, or 4;

Het<sup>1</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

X represents O or S;

R<sup>5a</sup> and R<sup>5b</sup> independently represent H or , C<sub>1-3</sub> alkyl or C<sub>3</sub> cycloalkoxy;

 $R^2$  and  $R^3$  independently represent H,  $C_{1-4}$  alkyl (optionally substituted with one or more nitro or cyano groups),  $\underline{C_{3-4}}$  cycloalkyl,  $OR^7$ ,  $N(R^{7a})R^{7b}$ ,  $OC(O)R^8$  or together form -  $O-(CH_2)_2-O-$ ,  $-(CH_2)_3-$ ,  $-(CH_2)_4-$  or  $-(CH_2)_5-$ ;

 $R^7$  and  $R^8$  independently represent H,  $C_{1-6}$  alkyl, or -( $CH_2$ )<sub>b</sub>-aryl (which latter two groups are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro,  $C_{1-4}$  alkyl, and/or  $C_{1-4}$  alkoxy, and/or  $C_{3-4}$  cycloalkyl);

R<sup>7a</sup> and R<sup>7b</sup> independently represent H, or C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

b represents 0, 1, 2, 3 or 4;

R<sup>4</sup> represents H, or C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

D represents H, -OH, or -( $CH_2$ )<sub>c</sub>N( $R^{10}$ )( $R^{11}$ );

c represents 0, 1, 2, 3 or 4;

 $R^{10}$  represents H,  $C_{1-6}$  alkyl,  $\underline{C_{3-6}}$  cycloalkyl,  $-(CH_2)_d$ -aryl,  $-C(NH)NH_2$ ,  $-S(O)_2R^{13}$ ,  $-[C(O)]_eN(R^{14})(R^{15})$ ,  $-C(O)R^{16}$  or  $-C(O)OR^{17}$ ;

e represents 1 or 2;

 $R^{11}$  represents H,  $C_{1-6}$  alkyl,  $-C(O)R^{18}$  or  $-(CH_2)_f$ -aryl (which latter group is optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro,  $C_{1-6}$  alkyl and/or  $\underline{C}_{3-6}$  cycloalkyl and/or  $\underline{C}_{3-6}$  cycloalkoxy);

 $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$  and  $R^{18}$  independently represent H,  $C_{1-6}$  alkyl,  $\underline{C_{3-6}}$  cycloalkyl, Het<sup>2</sup> or -(CH<sub>2</sub>)<sub>g</sub>-aryl (which latter three groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro,  $C_{1-6}$  alkyl and/or  $\underline{C_{3-6}}$  cycloalkyl and/or  $\underline{C_{3-6}}$  cycloalkoxy);

 $R^{13}$  represents  $C_{1-6}$  alkyl,  $\underline{C_{3-6}}$  cycloalkyl, aryl or - $(CH_2)_h$ -aryl (all of which are all optionally substituted by one or more substituents chosen from halo, nitro,  $C_{1-6}$  alkyl and/or  $C_{3-6}$  cycloalkyl and/or  $C_{3-6}$  cycloalkoxy);

d, f, g and h independently represent 0, 1, 2, 3 or 4;

Het<sup>2</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

 $R^6$  represents one or more optional substituents selected from -OH, cyano, halo, amino, nitro,  $C_{1-6}$  alkyl (optionally terminated by -N(H)C(O)OR<sup>18a</sup>),  $C_{1-6}$  alkoxy,  $\underline{C_{3-6}}$  cycloalkyl,  $\underline{C_{3-6}}$  cycloalkoxy, -C(O)N(H)R<sup>19</sup>, -NHC(O)N(H)R<sup>20</sup>, -N(H)S(O)<sub>2</sub>R<sup>21</sup> and/or -OS(O)<sub>2</sub>R<sup>22</sup>;

 $R^{19}$  and  $R^{20}$  independently represent H er  $_1$   $C_{1-6}$  alkyl or  $\underline{C_{3-6}}$  cycloalkyl;  $R^{18a}$ ,  $R^{21}$  and  $R^{22}$  independently represent  $C_{1-6}$  alkyl or  $\underline{C_{3-6}}$  cycloalkyl;

A represents a single bond,  $C_{1-6}$  alkylene,  $-N(R^{23})(CH_2)_{j^-}$ ,  $-O(CH_2)_{j^-}$  or  $-(CH_2)_JC(H)(OR^{23})(CH_2)_{k^-}$  (in which latter three groups, the  $-(CH_2)_{j^-}$  group is attached to the bispidine nitrogen atom, and which latter four groups are all optionally substituted by one or more OH groups);

B represents a single bond,  $C_{1-4}$  alkylene,  $-(CH_2)_mN(R^{24})$ -,  $(CH_2)_mS(O)_n$ -,  $-(CH_2)_mO$ - (in which three latter groups, the  $-(CH_2)_m$ - group is attached to the carbon atom bearing D and R<sup>4</sup>),  $-C(O)N(R^{24})$ - (in which latter group, the -C(O)- group is

attached to the carbon atom bearing D and R<sup>4</sup>),  $N(R^{24})C(O)O(CH_2)_m$ - or  $-N(R^{24})(CH_2)_m$ (in which latter two groups, the  $N(R^{24})$  group is attached to the carbon atom bearing D and R<sup>4</sup>);

j, k and m independently represent 0, 1, 2, 3 or 4;
n represents 0, 1 or 2;  $R^{23} \text{ represents H, C}_{1-6} \text{ alkyl}, \underline{C}_{3-6} \text{ cycloalkyl} \text{ or } \underline{C(O)} R^{25}$   $R^{24} \text{ represents H or , C}_{1-6} \text{ alkyl or C}_{3-6} \text{ cycloalkyl};$ 

 $R^{25}$  represents H,  $C_{1-6}$  alkyl,  $C_{3-6}$  cycloalkyl, Het<sup>3</sup> or -(CH<sub>2</sub>)<sub>p</sub>-aryl (which latter two groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro,  $C_{1-6}$  alkyl and/or,  $C_{1-6}$  alkoxy,  $C_{3-6}$  cycloalkyl and/or  $C_{3-6}$  cycloalkoxy);

Het<sup>3</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

p represents 0, 1, 2, 3 or 4;

or a pharmaceutically acceptable salt, N-oxide or  $\underline{C_{1-4}}$  alkyl quaternary ammonium derivative thereof;

wherein alkyl groups that R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>7a</sup>, R<sup>7b</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>18a</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and D may represent, and with which R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted; and alkoxy groups and R<sup>6</sup> may represent, and with which R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted, may be linear or, when there is a sufficient number (i.e. three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be

saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen and/or substituted by one or more fluoro groups; and

wherein alkylene groups that A and B may represent, and –(CH<sub>2</sub>)- containing groups that R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> (together), R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>25</sup>, A, B and D may include, may be linear or, when there is a sufficient number (i.e. two) of carbon atoms, be branched, and wherein such alkylene groups and –(CH<sub>2</sub>)- containing chains may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen:

provided that:

- (a) when D represents either H or -OH, and R<sup>5a</sup> and R<sup>5b</sup> both represent H, then at least one of R<sup>2</sup> and R<sup>3</sup> represents OR<sup>7</sup>, OC(O)R<sup>8</sup> or C<sub>1-4</sub> alkyl, which alkyl group is substituted with one or more nitro or cyano groups; and
  - (b) when D represents -OH or -(CH<sub>2</sub>)<sub>c</sub>N(R<sup>10</sup>)R<sup>11</sup> in which c represents 0, then:-
- (i) A does not represent  $-N(R^{23})(CH_2)_{j^-}$ ,  $-O(CH_2)_{j^-}$  or  $-CH_2)_JC(H)(OR^{23})(CH_2)_k$ (in which k is 0); and/or
- (ii) m does not represent 0 when B represents -(CH<sub>2</sub>)<sub>m</sub>N(R<sup>24</sup>)-, -(CH<sub>2</sub>)<sub>m</sub>S(O)<sub>n</sub>- or -(CH<sub>2</sub>)<sub>m</sub>O-.
- 2 (previously amended). A compound as claimed in Claim 1, wherein  $R^1$  represents optionally substituted -( $CH_2$ )<sub>a</sub>-phenyl, in which a is 0, 1, 2 or 3, or optionally substituted, optionally unsaturated, linear, branched or cyclic,  $C_{1-18}$  alkyl (which latter group may also be interrupted by an oxygen atom).

3 (previously amended). A compound as claimed in Claim 1, wherein  $R^2$  represents H,  $OR^7$ ,  $-CH_2NO_2$  or  $-OC(O)R^8$  or together with  $R^3$  -O-( $CH_2$ )<sub>2</sub>-O-.

4 (previously amended). A compound as claimed in Claim 1, wherein R<sup>3</sup> represents H, OR<sup>7</sup>, C<sub>1-4</sub> alkyl or together with R<sup>2</sup> represents -O-(CH<sub>2</sub>)<sub>2</sub>-O-.

5 (previously amended). A compound as claimed in Claim 1, wherein  $R^4$  represents H or  $C_{1\cdot 2}$  alkyl.

6 (previously amended). A compound as claimed in Claim 1, wherein R<sup>5a</sup> and R<sup>5b</sup> either both represent H or both represent methyl.

7 (previously amended). A compound as claimed in Claim 1, wherein  $R^6$  represents one or more substituents selected from  $C_{1.6}$  alkyl, cyano, nitro, amino or  $C(O)N(H)R^{19}$  or  $N(H)S(O)_2R^{21}$ .

8 (previously amended). A compound as claimed in Claim 1, wherein X represents O.

9 (previously amended). A compound as claimed in Claim 1, wherein A represents a single bond or linear, or branched,  $C_{1-4}$  alkylene (which group is also optionally interrupted by O).

10 (previously amended). A compound as claimed in Claim 1, wherein B represents a single bond,  $C_{1-4}$  alkylene,  $-(CH_2)_mO$ - or  $-(CH_2)_mN(R^{24})$ - (in which latter two cases m is 1, 2 or 3).

11 (previously amended). A compound as claimed in Claim 1, wherein when D represents  $-(CH_2)_cN(R^{10})(R^{11})$ , c represents 0, 1 or 2.

12 (previously amended). A compound as claimed in Claim 1, wherein when D represents -( $CH_2$ )<sub>c</sub>N( $R^{10}$ )( $R^{11}$ ),  $R^{10}$  represents H,  $C_{1-4}$  alkyl, - $C(O)R^{16}$  (in which  $R^{16}$  is H,  $C_{1-3}$  alkyl or Het<sup>2</sup>), - $C(O)OR^{17}$  (in which  $R^{17}$  is  $C_{1-5}$  alkyl, phenyl or  $C_{1-3}$  alkylphenyl), - $C(NH)NH_2$  or  $[C(O)]_eN(H)R_{15}$  (in which  $R_{15}$  is H or  $C_{1-3}$  alkyl).

13 (previously amended). A compound as claimed in Claim 1, wherein when D represents -(CH) $_c$ N(R<sup>10</sup>)(R<sup>11</sup>), R<sup>11</sup> represents H.

14 (previously amended). A pharmaceutical formulation including a compound as defined in Claim 1 in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier.

20 (currently amended). A method of prophylaxis or treatment of an arrhythmia which method comprises administration of a therapeutically effective amount of a compound as defined in Claim 1 to a person suffering from or susceptible to, such a condition in need thereof.

21 (currently amended) A process for the preparation of a compound of formula I as defined in Claim 1 which comprises:

(a) reaction of a compound of formula II,

wherein R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B and D are as defined in Claim 1 with a compound of formula III,

wherein L¹ represents a leaving group and R' and X are as defined in Claim 1;

(b) for compounds of formula I in which A represents CH₂ and D represents

—OH or N(R¹⁰)H, reaction of a compound of formula IV,

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wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^{5a}$ ,  $R^{5b}$  and X are as defined in Claim 1, with a compound of formula V,

wherein Y represents 0 or N(R<sup>10</sup>) and R<sup>4</sup>, R<sup>6</sup>, R<sup>10</sup> and B are as defined in Claim 1;

(c) reaction of a compound of formula IV, as defined above, with a compound of formula VI,

wherein L<sup>2</sup> represents a leaving group and R<sup>4</sup>, R<sup>6</sup>, A, B and D are as defined in Claim 1;

(d) for compounds of formula I in which D represents H or OH and R<sup>4</sup> represents H, reduction of a compound of formula VII,

wherein R', R<sup>2</sup>, R<sup>3</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B and X are as defined in Claim 1;

(e) for compounds of formula I in which one of R<sup>2</sup> and R<sup>3</sup> represents H or OH and the other represents H, reduction of a corresponding compound of formula VIII,

wherein R<sup>1</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B, D and X are as defined in Claim 1;

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(f) for compounds of formula I in which R<sup>2</sup> and/or R<sup>3</sup> represents OC(O)R<sup>8</sup> and R<sup>8</sup> is as defined in Claim 1, coupling of a corresponding compound of formula I in which R<sup>2</sup> and/or R<sup>3</sup> (as appropriate) represents OH and a compound of formula VIIIA,

wherein R<sup>8</sup> is as defined in Claim 1;

(g) for compounds of formula I in which D represents —(CH<sub>2</sub>)<sub>c</sub>NH<sub>2</sub>, reduction of a corresponding compound of formula IX,

$$R^3$$
 $R^2$ 
 $R^5$ 
 $R^5$ 

wherein c,  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^{5a}$ ,  $R^{5b}$ ,  $R^6$ , A, B and X are as defined in Claim 1;

(h) for compounds of formula I in which D represents -N(R<sup>11</sup>)C(O)NH(R<sup>15</sup>), in which R<sup>11</sup> and R<sup>15</sup> are as defined in Claim 1 except that R<sup>11</sup> does not represent C(O)R<sup>18</sup>, reaction of a corresponding compound of formula I in which D represents -N(R<sup>11</sup>)H, in which R<sup>11</sup> is as defined in Claim 1 except that is does not represent C(O)R<sup>18</sup> in which R<sup>18</sup> is as defined in Claim 1, with a compound of formula X,

Χ

wherein R15 is as defined in Claim 1;

(i) for compounds of formula I in which D represents -N(H)[C(O)]<sub>2</sub>NH<sub>2</sub>, reaction of a corresponding compound of formula I in which D represents

-NH<sub>2</sub> with oxalic acid diamide;

(j) for compounds of formula I in which D represents -N(R<sup>11</sup>)C(O)R<sup>16</sup>, in which R<sup>11</sup> and R<sup>16</sup> are as defined in Claim 1 except that R<sup>11</sup> does not represent C(O)R<sup>18</sup>, reaction of a corresponding compound of formula I in which D represents -N(R<sup>11</sup>)H, in which R<sup>11</sup> is as defined in Claim 1 except that is does not represent C(O)R<sup>18</sup> in which R<sup>18</sup> is as defined in Claim 1, with a compound of formula XI,

# $R^{16}C(O)R_x$

ΧI

wherein R<sub>x</sub> represents a suitable leaving group and R<sup>16</sup> is as defined in Claim 1;

(k) for compounds of formula I in which D represents -N(H)R<sup>10</sup> and R<sup>10</sup> is as defined in Claim 1 except that it does not represent H or -C(NH)NH<sub>2</sub>, reaction of a corresponding compound of formula I wherein D represents -NH<sub>2</sub> with a compound of formula XIA,

$$R^{10a}L^1$$
 XIA

wherein R<sup>10a</sup> represents R<sup>10</sup> as defined in Claim 1 except that it does not represent H or —C(NH)NH<sub>2</sub> and L<sup>1</sup> is as defined above;

- (I) for compounds of formula I which are bispidine-nitrogen N-oxide derivatives, oxidation of the corresponding bispidine nitrogen of a corresponding compound of formula I;
- (m) for compounds of formula I which are  $C_{1-4}$  alkyl quaternary ammonium salt derivatives, in which the alkyl group is attached to a bispidine nitrogen, reaction, at the bispidine nitrogen, of a corresponding compound of formula I with a compound of

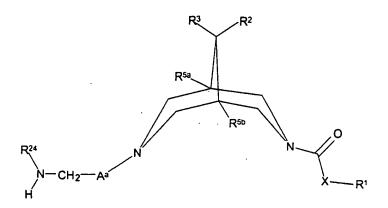
formula XII,

## R<sup>3</sup>Hal

XII

wherein Ra represents C<sub>1-4</sub> alkyl and Hal represents Cl, Br or I;

(n) for compounds of formula I in which D and  $R^4$  both represent H, A represents  $C_{1^-6}$  alkylene, B represents  $N(R^{24})(CH_2)_m$  and m and  $R^{24}$  are as defined in Claim 1, reaction of a compound of formula XIII,



XIII

wherein A<sup>a</sup> represents C<sub>1-6</sub> alkylene and R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>24</sup>andX are as defined in Claim 1 with a compound of formula XIV,

wherein R<sup>6</sup>, m are as defined in Claim 1 and Hal is as defined above;

(o) reaction of a compound of formula II, as defined above, with a compound of formula XV,

R<sup>1</sup>XH

ΧV

wherein R¹ and X are as defined in Claim 1, in the presence of 1,1'-carbonyldiimidazole; (p) for compounds of formula I in which one of R² and R³ represents —NH₂ and the other represents H, reduction of a compound of formula XVA,

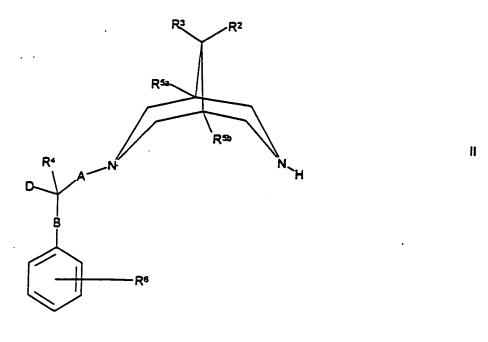
wherein  $R^1$ ,  $R^4$ ,  $R^{5a}$ ,  $R^{5b}$ ,  $R^6$ , A, B, D and X are as defined in Claim 1; or (q) for compounds of formula I in which one or both of  $R^2$  and  $R^3$  represent -N( $R^{7a}$ ) $R^{7b}$  in which one or both or  $R^{7a}$  and  $R^{7b}$  represents  $C_{1-6}$  alkyl, alkylation of a corresponding compound of formula I in which  $R^2$  and/or  $R^3$  represent -N( $R^{7a}$ ) $R^{7b}$  (as appropriate) in which  $R^{7a}$  and/or  $R^{7b}$  (as appropriate) represent H, using a compound of formula XXIB,

wherein R<sup>7c</sup> represents C<sub>1-6</sub> alkyl and L<sup>1</sup> is as defined above.; <u>or</u>

(r) conversion of one R<sup>6</sup> substituent to another; or

(s) (r) deprotection of a protected derivative of a compound of formula I as defined in Claim 1.

22 (currently amended). A compound of formula II



FI

wherein R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B and D are as defined in Claim 1

R<sup>5a</sup> and R<sup>5b</sup> independently represent H, C<sub>1-3</sub> alkyl or C<sub>3</sub> cycloalkoxy;

 $R^2$  and  $R^3$  independently represent H,  $C_{1-4}$  alkyl (optionally substituted with one or more nitro or cyano groups),  $C_{3-4}$  cycloalkyl,  $OR^7$ ,  $N(R^{7a})R^{7b}$ ,  $OC(O)R^8$  or together form -  $O-(CH_2)_2-O-$ ,  $-(CH_2)_3-$ ,  $-(CH_2)_4-$  or  $-(CH_2)_5-$ ;

 $R^7$  and  $R^8$  independently represent H,  $C_{1-6}$  alkyl, or  $-(CH_2)_b$ -aryl (which latter two groups are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro,  $C_{1-4}$  alkyl,  $C_{1-4}$  alkoxy, and/or  $C_{3-4}$  cycloalkyl);

R<sup>7a</sup> and R<sup>7b</sup> independently represent H, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

b represents 0, 1, 2, 3 or 4;

R<sup>4</sup> represents H, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

D represents H, -OH, or -(CH<sub>2</sub>)<sub>c</sub>N(R<sup>10</sup>)(R<sup>11</sup>);

c represents 0, 1, 2, 3 or 4;

 $\frac{R^{10} \text{ represents H, C}_{1-6} \text{ alkyl, C}_{3-6} \text{ cycloalkyl, -(CH}_2)_d\text{-aryl, -C(NH)NH}_2, -S(O)_2R^{13},}{-[C(O)]_eN(R^{14})(R^{15}), -C(O)R^{16} \text{ or -C(O)OR}^{17};}$ 

e represents 1 or 2;

 $R^{11}$  represents H,  $C_{1-6}$  alkyl,  $-C(O)R^{18}$  or  $-(CH_2)_f$ -aryl (which latter group is optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy,  $C_{3-6}$  cycloalkyl and/or  $C_{3-6}$  cycloalkoxy);

R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup> and R<sup>18</sup> independently represent H, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl, Het<sup>2</sup> or -(CH<sub>2</sub>)<sub>g</sub>-aryl (which latter three groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl , C<sub>1-6</sub> alkoxy, C<sub>3-6</sub> cycloalkyl and/or C<sub>3-6</sub> cycloalkoxy);

 $R^{13}$  represents  $C_{1-6}$  alkyl,  $C_{3-6}$  cycloalkyl, aryl or - $(CH_2)_h$ -aryl (all of which are all optionally substituted by one or more substituents chosen from halo, nitro,  $C_{1-6}$  alkyl ,  $C_{1-6}$  alkoxy,  $C_{3-6}$  cycloalkyl and/or  $C_{3-6}$  cycloalkoxy);

d, f, g and h independently represent 0, 1, 2, 3 or 4;

Het<sup>2</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

R<sup>6</sup> represents one or more optional substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl (optionally terminated by -N(H)C(O)OR<sup>18a</sup>), C<sub>1-6</sub> alkoxy, C<sub>3-6</sub> cycloalkyl, C<sub>3-6</sub> cycloalkoxy, -C(O)N(H)R<sup>19</sup>, -NHC(O)N(H)R<sup>20</sup>, -N(H)S(O)<sub>2</sub>R<sup>21</sup> and/or -OS(O)<sub>2</sub>R<sup>22</sup>;

 $R^{19}$  and  $R^{20}$  independently represent H ,  $C_{1-6}$  alkyl or  $C_{3-6}$  cycloalkyl;  $R^{18a}$ ,  $R^{21}$  and  $R^{22}$  independently represent  $C_{1-6}$  alkyl or  $C_{3-6}$  cycloalkyl;

A represents a single bond,  $C_{1-6}$  alkylene,  $-N(R^{23})(CH_2)_{i^-}$ ,  $-O(CH_2)_{i^-}$  or  $-(CH_2)_{ij}C(H)(OR^{23})(CH_2)_{k^-}$  (in which latter three groups, the  $-(CH_2)_{i^-}$  group is attached to the bispidine nitrogen atom, and which latter four groups are all optionally substituted by one or more OH groups);

B represents a single bond,  $C_{1-4}$  alkylene,  $-(CH_2)_mN(R^{24})$ -,  $(CH_2)_mS(O)_n$ -,  $-(CH_2)_mO$ - (in which three latter groups, the  $-(CH_2)_m$ - group is attached to the carbon atom bearing D and R<sup>4</sup>),  $-C(O)N(R^{24})$ - (in which latter group, the -C(O)- group is attached to the carbon atom bearing D and R<sup>4</sup>),  $N(R^{24})C(O)O(CH_2)_m$ - or  $-N(R^{24})(CH_2)_m$ - (in which latter two groups, the  $N(R^{24})$  group is attached to the carbon atom bearing D and R<sup>4</sup>);

j, k and m independently represent 0, 1, 2, 3 or 4;

n represents 0, 1 or 2;

R<sup>23</sup> represents H, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl or C(O)R<sup>25</sup>

R<sup>24</sup> represents H , C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

 $\frac{R^{25} \text{ represents H, C}_{1-6} \text{ alkyl, C}_{3-6} \text{ cycloalkyl, Het}^3 \text{ or -(CH}_2)_p\text{-aryl (which latter two groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C}_{1-6} \text{ alkyl , C}_{1-6} \text{ alkoxy, C}_{3-6} \text{ cycloalkyl and/or C}_{3-6} \text{ cycloalkoxy);}$ 

Het<sup>3</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

p represents 0, 1, 2, 3 or 4;

wherein alkyl groups that R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>7a</sup>, R<sup>7b</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>18a</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and D may represent, and with which R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted; and

alkoxy groups and R<sup>6</sup> may represent, and with which R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted, may be linear or, when there is a sufficient number (i.e. three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen and/or substituted by one or more fluoro groups; and

wherein alkylene groups that A and B may represent, and –(CH<sub>2</sub>)- containing groups that R<sup>2</sup> and R<sup>3</sup> (together), R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>25</sup>, A, B and D may include, may be linear or, when there is a sufficient number (i.e. two) of carbon atoms, be branched, and wherein such alkylene groups and –(CH<sub>2</sub>)- containing chains may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen,

does not represent H or OH.

23 (currently amended). A compound of formula IV

wherein R1, R2, R3, R5a, R5b and X are as defined in Claim 1

 $R^1$  represents  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $-(CH_2)_a$ -aryl, or  $(CH_2)_a$ Het<sup>1</sup> (all of which are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro,  $C_{1-4}$  alkyl,  $C_{3-4}$  cycloalkyl and/or  $C_{1-4}$  alkoxy or  $C_{3-4}$  cycloalkoxy);

a represents 0, 1, 2, 3, or 4;

Het<sup>1</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

X represents O or S;

R<sup>5a</sup> and R<sup>5b</sup> independently represent H, C<sub>1-3</sub> alkyl or C<sub>3</sub> cycloalkoxy;

R<sup>2</sup> and R<sup>3</sup> independently represent H, C<sub>1-4</sub> alkyl (optionally substituted with one or more nitro or cyano groups), C<sub>3-4</sub> cycloalkyl, OR<sup>7</sup>, N(R<sup>7a</sup>)R<sup>7b</sup>, OC(O)R<sup>8</sup> or together form - O-(CH<sub>2</sub>)<sub>2</sub>-O-, -(CH<sub>2</sub>)<sub>3</sub>-, -(CH<sub>2</sub>)<sub>4</sub>- or -(CH<sub>2</sub>)<sub>5</sub>-;

R<sup>7</sup> and R<sup>8</sup> independently represent H, C<sub>1-6</sub> alkyl, or -(CH<sub>2</sub>)<sub>b</sub>-aryl or (which latter two groups are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro, C<sub>1-4</sub> alkyl, C<sub>1-4</sub> alkoxy, and/or C<sub>3-4</sub> cycloalkyl);

 $R^{7a}$  and  $R^{7b}$  independently represent H,  $C_{1-6}$  alkyl or  $C_{3-6}$  cycloalkyl;

b represents 0, 1, 2, 3 or 4;

wherein alkyl groups that R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>7</sup>, R<sup>7a</sup>, R<sup>7b</sup> and R<sup>8</sup> may represent, and with which R<sup>1</sup>, R<sup>7</sup> and R<sup>8</sup> may be substituted; and alkoxy groups and with which R<sup>1</sup>, R<sup>7</sup> and R<sup>8</sup> may be substituted, may be linear or, when there is a sufficient number (i.e. three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be saturated or,

when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen and/or substituted by one or more fluoro groups;

or a derivative thereof, provided that when R<sup>5a</sup> and R<sup>5b</sup> both represent H, then at least one of R<sup>2</sup> and R<sup>3</sup> represents OR<sup>7</sup>, OC(O)R<sup>8</sup> or C<sub>1-4</sub> alkyl, which alkyl group is substituted with one or more nitro or cyano groups.

24 (currently amended). A compound of formula VIII

wherein R<sup>1</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup> A, B, D and X are as defined in Claim 1

 $R^1$  represents  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl,  $-(CH_2)_a$ -aryl, or  $(CH_2)_a$ Het<sup>1</sup> (all of which are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro,  $C_{1-4}$  alkyl,  $C_{3-4}$  cycloalkyl and/or  $C_{1-4}$  alkoxy or  $C_{3-4}$  cycloalkoxy);

a represents 0, 1, 2, 3, or 4;

Het<sup>1</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

X represents O or S;

R<sup>5a</sup> and R<sup>5b</sup> independently represent H, C<sub>1-3</sub> alkyl or C<sub>3</sub> cycloalkoxy;

R<sup>4</sup> represents H, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

D represents H, -OH, or -( $CH_2$ )<sub>c</sub> $N(R^{10})(R^{11})$ ;

c represents 0, 1, 2, 3 or 4;

 $R^{10}$  represents H,  $C_{1-6}$  alkyl,  $C_{3-6}$  cycloalkyl,  $-(CH_2)_d$ -aryl,  $-C(NH)NH_2$ ,  $-S(O)_2R^{13}$ ,  $-[C(O)]_eN(R^{14})(R^{15})$ ,  $-C(O)R^{16}$  or  $-C(O)OR^{17}$ ;

e represents 1 or 2;

 $R^{11}$  represents H,  $C_{1-6}$  alkyl,  $-C(O)R^{18}$  or  $-(CH_2)_f$ -aryl (which latter group is optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro,  $C_{1-6}$  alkyl ,  $C_{1-6}$  alkoxy,  $C_{3-6}$  cycloalkyl and/or  $C_{3-6}$  cycloalkoxy);

R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup> and R<sup>18</sup> independently represent H, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl,

Het<sup>2</sup> or -(CH<sub>2</sub>)<sub>g</sub>-aryl (which latter three groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, C<sub>3-6</sub> cycloalkyl and/or C<sub>3-6</sub> cycloalkoxy);

 $\frac{R^{13} \text{ represents } C_{1-6} \text{ alkyl, } C_{3-6} \text{ cycloalkyl, aryl or -(CH}_2)_h\text{-aryl (all of which are all optionally substituted by one or more substituents chosen from halo, nitro, <math>C_{1-6} \text{ alkyl}$ ,  $\frac{C_{1-6} \text{ alkoxy, } C_{3-6} \text{ cycloalkyl and/or } C_{3-6} \text{ cycloalkoxy)};}{C_{1-6} \text{ alkoxy, } C_{3-6} \text{ cycloalkyl and/or } C_{3-6} \text{ cycloalkoxy)};}$ 

d, f, g and h independently represent 0, 1, 2, 3 or 4;



Het<sup>2</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

R<sup>6</sup> represents one or more optional substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl (optionally terminated by -N(H)C(O)OR<sup>18a</sup>), C<sub>1-6</sub> alkoxy, C<sub>3-6</sub> cycloalkyl, C<sub>3-6</sub> cycloalkoxy, -C(O)N(H)R<sup>19</sup>, -NHC(O)N(H)R<sup>20</sup>, -N(H)S(O)<sub>2</sub>R<sup>21</sup> and/or -OS(O)<sub>2</sub>R<sup>22</sup>;

R<sup>19</sup> and R<sup>20</sup> independently represent H , C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

R<sup>18a</sup>, R<sup>21</sup> and R<sup>22</sup> independently represent C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl:

A represents a single bond, C<sub>1-6</sub> alkylene, -N(R<sup>23</sup>)(CH<sub>2</sub>)<sub>i</sub>-, -O(CH<sub>2</sub>)<sub>i</sub>- or -(CH<sub>2</sub>)<sub>1</sub>C(H)(OR<sup>23</sup>)(CH<sub>2</sub>)<sub>k</sub>- (in which latter three groups, the -(CH<sub>2</sub>)<sub>i</sub>- group is attached to the bispidine nitrogen atom, and which latter four groups are all optionally substituted by one or more OH groups);

B represents a single bond,  $C_{1-4}$  alkylene,  $-(CH_2)_mN(R^{24})$ -,  $(CH_2)_mS(O)_n$ -,  $-(CH_2)_mO$ - (in which three latter groups, the  $-(CH_2)_m$ - group is attached to the carbon atom bearing D and R<sup>4</sup>), -C(O)N(R<sup>24</sup>)- (in which latter group, the -C(O)- group is attached to the carbon atom bearing D and R<sup>4</sup>), N(R<sup>24</sup>)C(O)O(CH<sub>2</sub>)<sub>m</sub>- or -N(R<sup>24</sup>)(CH<sub>2</sub>)<sub>m</sub>-(in which latter two groups, the N(R<sup>24</sup>) group is attached to the carbon atom bearing D and R4);

j, k and m independently represent 0, 1, 2, 3 or 4;

n represents 0, 1 or 2;

R<sup>23</sup> represents H, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl or C(O)R<sup>25</sup>

R<sup>24</sup> represents H , C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

 $R^{25}$  represents H,  $C_{1-6}$  alkyl,  $C_{3-6}$  cycloalkyl,  $R^{2}$  or  $R^{25}$  or  $R^{25}$  represents H,  $R^{25}$  alkyl,  $R^{25}$  cycloalkyl,  $R^{25}$  or  $R^{25}$  are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro,  $R^{25}$  alkyl,  $R^{25}$  cycloalkyl and/or  $R^{25}$  cycloalkoxy);

Het<sup>3</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

#### p represents 0, 1, 2, 3 or 4;

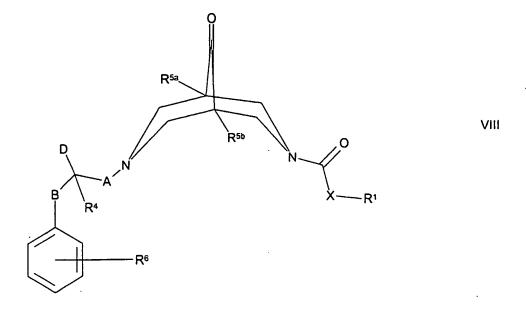
wherein alkylene groups that A and B may represent, and –(CH<sub>2</sub>)- containing groups that R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>25</sup>, A, B and D may include, may be linear or, when there is a sufficient number (i.e. two) of carbon atoms, be branched, and wherein such alkylene groups and –(CH<sub>2</sub>)- containing chains may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen,

er a derivative thereof, provided that when R<sup>5a</sup> and R<sup>5b</sup> both represent H, then D does not represent H or OH.

25 (currently amended). A compound of formula XVII,

wherein R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B and D are as defined in Claim 1, or a protected derivative thereof, provided that when R<sup>5a</sup> and R<sup>5b</sup> both represent H, then D does not represent H or OH.

26 (currently amended). A process for the preparation of a compound of formula VIII, as defined in Claim 24, or a compound of formula XVII, as defined in Claim 25,



FI

### wherein

 $R^1$  represents  $C_{1-12}$  alkyl,  $C_{3-12}$  cycloalkyl, - $(CH_2)_a$ -aryl, or  $(CH_2)_a$ Het<sup>1</sup> (all of which are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro,  $C_{1-4}$  alkyl,  $C_{3-4}$  cycloalkyl and/or  $C_{1-4}$  alkoxy or  $C_{3-4}$  cycloalkoxy);

a represents 0, 1, 2, 3, or 4;

Het<sup>1</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

X represents O or S;

R<sup>5a</sup> and R<sup>5b</sup> independently represent H, C<sub>1-3</sub> alkyl or C<sub>3</sub> cycloalkoxy;

R<sup>4</sup> represents H, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

D represents H, -OH, or -( $CH_2$ )<sub>c</sub> $N(R^{10})(R^{11})$ ;

c represents 0, 1, 2, 3 or 4;

 $R^{10}$  represents H,  $C_{1-6}$  alkyl,  $C_{3-6}$  cycloalkyl,  $-(CH_2)_d$ -aryl,  $-C(NH)NH_2$ ,  $-S(O)_2R^{13}$ ,  $-[C(O)]_eN(R^{14})(R^{15})$ ,  $-C(O)R^{16}$  or  $-C(O)QR^{17}$ ;

e represents 1 or 2;

 $\frac{R^{11} \text{ represents H, C}_{1-6} \text{ alkyl, -C(O)} R^{18} \text{ or -(CH}_2)_{f}\text{-aryl (which latter group is}}{\text{optionally substituted by one or more substituents selected from -OH, cyano, halo,}}{\text{amino, nitro, C}_{1-6} \text{ alkyl }, C_{1-6} \text{ alkoxy, C}_{3-6} \text{ cycloalkyl and/or C}_{3-6} \text{ cycloalkoxy)};}$ 

R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup> and R<sup>18</sup> independently represent H, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl, Het<sup>2</sup> or -(CH<sub>2</sub>)<sub>g</sub>-aryl (which latter three groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, C<sub>3-6</sub> cycloalkyl and/or C<sub>3-6</sub> cycloalkoxy);

 $R^{13}$  represents  $C_{1-6}$  alkyl,  $C_{3-6}$  cycloalkyl, aryl or - $(CH_2)_h$ -aryl (all of which are all optionally substituted by one or more substituents chosen from halo, nitro,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy,  $C_{3-6}$  cycloalkyl and/or  $C_{3-6}$  cycloalkoxy);

d, f, g and h independently represent 0, 1, 2, 3 or 4;

Het<sup>2</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

R<sup>6</sup> represents one or more optional substituents selected from -OH, cyano, halo, amino, nitro, C<sub>1-6</sub> alkyl (optionally terminated by -N(H)C(O)OR<sup>18a</sup>), C<sub>1-6</sub> alkoxy, C<sub>3-6</sub> cycloalkyl, C<sub>3-6</sub> cycloalkoxy, -C(O)N(H)R<sup>19</sup>, -NHC(O)N(H)R<sup>20</sup>, -N(H)S(O)<sub>2</sub>R<sup>21</sup> and/or -OS(O)<sub>2</sub>R<sup>22</sup>;

R<sup>19</sup> and R<sup>20</sup> independently represent H , C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

R<sup>18a</sup>, R<sup>21</sup> and R<sup>22</sup> independently represent C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

A represents a single bond, C<sub>1-6</sub> alkylene, -N(R<sup>23</sup>)(CH<sub>2</sub>)<sub>i</sub>-, -O(CH<sub>2</sub>)<sub>i</sub>- or

-(CH<sub>2</sub>)<sub>J</sub>C(H)(OR<sup>23</sup>)(CH<sub>2</sub>)<sub>k</sub>- (in which latter three groups, the -(CH<sub>2</sub>)<sub>i</sub>- group is attached to
the bispidine nitrogen atom, and which latter four groups are all optionally substituted by
one or more OH groups);

B represents a single bond,  $C_{1-4}$  alkylene,  $-(CH_2)_mN(R^{24})$ -,  $(CH_2)_mS(O)_n$ -,  $-(CH_2)_mO$ - (in which three latter groups, the  $-(CH_2)_m$ - group is attached to the carbon atom bearing D and R<sup>4</sup>),  $-C(O)N(R^{24})$ - (in which latter group, the -C(O)- group is attached to the carbon atom bearing D and R<sup>4</sup>),  $N(R^{24})C(O)O(CH_2)_m$ - or  $-N(R^{24})(CH_2)_m$ - (in which latter two groups, the  $N(R^{24})$  group is attached to the carbon atom bearing D and R<sup>4</sup>);

j, k and m independently represent 0, 1, 2, 3 or 4;

n represents 0, 1 or 2;

R<sup>23</sup> represents H, C<sub>1-6</sub> alkyl, C<sub>3-6</sub> cycloalkyl or C(O)R<sup>25</sup>

R<sup>24</sup> represents H , C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

 $R^{25}$  represents H,  $C_{1-6}$  alkyl,  $C_{3-6}$  cycloalkyl,  $R^{2}$  or  $R^{25}$  or  $R^{25}$  represents H,  $R^{25}$  represents H,  $R^{25}$  cycloalkyl,  $R^{25}$  or  $R^{25}$  represents H,  $R^{25}$  represent

Het<sup>3</sup> represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

p represents 0, 1, 2, 3 or 4;

wherein alkyl groups that R<sup>1</sup>, R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>7a</sup>, R<sup>7b</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>18a</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and D may represent, and with which R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted; and

alkoxy groups and R<sup>6</sup> may represent, and with which R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup> and R<sup>25</sup> may be substituted, may be linear or, when there is a sufficient number (i.e. three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen and/or substituted by one or more fluoro groups; and

wherein alkylene groups that A and B may represent, and –(CH<sub>2</sub>)- containing groups that R<sup>1</sup>, R<sup>7</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>13</sup>, R<sup>14</sup>, R<sup>15</sup>, R<sup>16</sup>, R<sup>17</sup>, R<sup>18</sup>, R<sup>25</sup>, A, B and D may include, may be linear or, when there is a sufficient number (i.e. two) of carbon atoms, be branched, and wherein such alkylene groups and –(CH<sub>2</sub>)- containing chains may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen,

provided that when R<sup>5a</sup> and R<sup>5b</sup> both represent H, then D does not represent H or OH, or

a compound of formula XVII,

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wherein R<sup>4</sup>, R<sup>5a</sup>, R<sup>5b</sup>, R<sup>6</sup>, A, B and D are as defined in Claim 1, provided that when R<sup>5a</sup> and R<sup>5b</sup> both represent H, then D does not represent H or OH, which comprises reaction of a compound of formula XXIX,

wherein  $R^Z$  represents H or -C(O)XR<sup>1</sup> and R<sup>1</sup>, R<sup>5a</sup>, R<sup>5b</sup> and X are as defined in Claim 1 with a compound of formula XXX,

or a protected derivative thereof, wherein R<sup>4</sup>, R<sup>6</sup>, A, B and D are as defined in Claim 1, in the presence of a formaldehyde.

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27 (previously presented). A method as claimed in Claim 20, wherein the arrhythmia is an atrial or a ventricular arrhythmia.